	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Defin...	Errors
1	BRS	L1	1	chi-conotoxin	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/04 09:42			0
2	BRS	L2	1	neuronal adj amine adj transporter	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/04 09:45			0
3	BRS	L3	1	neuronal adj noradrenaline adj transporter	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/04 09:45			0
4	BRS	L4	1	chi-mria or chi-mrib	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/04 09:45			0
5	BRS	L5	85362	pain	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/04 09:45			0
6	BRS	L6	43063	pain same (treat$4 or control$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/04 09:46			0
7	BRS	L7	0	1 same 6	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/04 09:46			0
8	BRS	L8	456	lewis adj richard.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/04 09:46			0
9	BRS	L9	2	alewood adj paul.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/04 09:46			0
10	BRS	L10	0	sharpe adj iain.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/04 09:47			0
11	BRS	L11	2	sharpe adj i adj a.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/04 09:47			0
12	BRS	L12	459	(8 or 9 or 10 or 11)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/04 09:47			0
13	BRS	L13	1	12 and 1	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/04 09:47			0

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FILE 'MEDLINE' ENTERED AT 09:50:40 ON 04 MAY 2004

FILE 'CAPLUS' ENTERED AT 09:50:40 ON 04 MAY 2004
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FILE 'SCISEARCH' ENTERED AT 09:50:40 ON 04 MAY 2004
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=> s chi-conotoxin
L1            4 CHI-CONOTOXIN

=> duplicate remove l1
DUPLICATE PREFERENCE IS 'CAPLUS, EMBASE'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L1
L2            4 DUPLICATE REMOVE L1 (0 DUPLICATES REMOVED)

=> d l2 1-4 ibib abs

L2   ANSWER 1 OF 4  EMBASE  COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
     on STN
ACCESSION NUMBER:   2004146990  EMBASE
TITLE:              Conotoxins as selective inhibitors of neuronal ion
                    channels, receptors and transporters.
AUTHOR:             Lewis R.J.
CORPORATE SOURCE:   R.J. Lewis, Institute for Molecular Biosciences, University
                    of Queensland, Brisbane, QLD 4072, Australia.
                    r.lewis@imb.uq.edu.au
SOURCE:             IUBMB Life, (2004) 56/2 (89-93).
                    Refs: 20
                    ISSN: 1521-6543  CODEN: IULIF8
COUNTRY:            United States
DOCUMENT TYPE:      Journal; General Review
FILE SEGMENT:       008     Neurology and Neurosurgery
                    029     Clinical Biochemistry
                    030     Pharmacology
                    037     Drug Literature Index
LANGUAGE:           English
SUMMARY LANGUAGE:   English
AB   Cone snails have evolved a vast array of peptide toxins for prey capture
     and defence. These peptides are directed against a wide variety of
     pharmacological targets, making them an invaluable source of ligands for
     studying the properties of these targets in normal and diseased states. A
     number of these peptides have shown efficacy in vivo, including inhibitors
     of calcium channels, the norepinephrine transporter, nicotinic
     acetylcholine receptors, NMDA receptors and neurotensin receptors, with
     several having undergone pre-clinical or clinical development for the
     treatment of pain.

L2   ANSWER 2 OF 4  EMBASE  COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
     on STN
ACCESSION NUMBER:   2003403019  EMBASE
TITLE:              Venoms to Drugs 2002 Conference: 14-19 July 2002, Heron
                    Island, Queensland, Australia.
AUTHOR:             Craik D.
CORPORATE SOURCE:   D. Craik, Institute for Molecular Bioscience, University of
                    Queensland, Kalthera Pty. Ltd., Brisbane, QLD, Australia.
                    d.craik@imb.uq.edu.au
SOURCE:             IDrugs, (2002) 5/9 (881-884).
                    ISSN: 1369-7056  CODEN: IDRUFN
COUNTRY:            United Kingdom
DOCUMENT TYPE:      Journal; Conference Article
FILE SEGMENT:       008     Neurology and Neurosurgery
                    030     Pharmacology
                    037     Drug Literature Index
                    038     Adverse Reactions Titles
```

029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
AB As the title suggests, the Venoms to Drugs conference was a highly focused meeting which reported on various aspects of venoms, with particular reference to the development of therapeutic agents from peptidic venom components. While the location on a coral island on the Great Barrier Reef reflected a focus on venoms from marine creatures, venoms from terrestrial animals and toxins from plants were also highlighted in a number of the presentations. Peptide components from the Conus marine snail species featured heavily in the program. Several talks referred to the progression through clinical trials of a least four known conopeptides. Regarding novel disclosures, Bruce Livett from the University of Melbourne gave a particularly interesting report on a newly discovered .alpha.-conotoxin with potential analgesic applications. This molecule is quite distinct from other conotoxins currently in clinical trials for the treatment of pain, and in particular from the .omega.-conotoxin class. .COPYRGT. PharmaPress Ltd.

L2 ANSWER 3 OF 4 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
ACCESSION NUMBER: 2001134193 EMBASE
TITLE: Composition and therapeutic utility of conotoxins from genus Conus. Patent status 1996 - 2000.
AUTHOR: Jones R.M.; Cartier G.E.; McIntosh J.M.; Bulaj G.; Farrar V.E.; Olivera B.M.
CORPORATE SOURCE: R.M. Jones, Cognetix Inc., 421 Wakara Way, Salt Lake City, UT 84108, United States. rjones@cognetix.com
SOURCE: Expert Opinion on Therapeutic Patents, (2001) 11/4 (603-623).
Refs: 51
ISSN: 1354-3776 CODEN: EOTPEG
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 008 Neurology and Neurosurgery
018 Cardiovascular Diseases and Cardiovascular Surgery
030 Pharmacology
032 Psychiatry
037 Drug Literature Index
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
AB With an exponentially increasing body of scientific evidence pointing toward the potential of conotoxins for treatment of a wide variety of nervous system and associated neurological disorders, there has been an explosion of activity in this patent area with more than eighty new patents and PCT publications in the past five years. With the emergence of ziconotide (SNX-111, .omega.-conotoxin MVIIA) as the first clinically used conotoxin for treatment of a neurological disorder, the first part of the new millennium is likely to see many more new filings in this field. The majority of the applications from this period focus on those classes of conopeptides that interact with nicotinic acetylcholine receptors (nAChRs) together with those that block voltage-gated ion channels. This arena has to date been dominated by three research groups: Neurex (a wholly-owned subsidiary of Elan, South San Francisco, CA, USA), Xenome and the Institute for Molecular Bioscience (IMB), University of Queensland (Melbourne, Australia) and Cognetix (Salt Lake City, UT, USA) together with the University of Utah Research Foundation and the Salk Institute for Biological Studies (La Jolla, CA, USA).

L2 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:241270 CAPLUS
DOCUMENT NUMBER: 132:288779
TITLE: Recombinant . ***chi*** .- ***conotoxin*** peptides for inhibiting neuronal amine transporters
INVENTOR(S): Lewis, Richard James; Alewood, Paul Francis; Sharpe, Iain Andrew
PATENT ASSIGNEE(S): The University of Queensland, Australia
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

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     WO 2000020444     A1   20000413       WO 1999-AU844    19991001
         W:  AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
             CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
             IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
             MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
             SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     CA 2344765        AA   20000413       CA 1999-2344765  19991001
     AU 9964530        A1   20000426       AU 1999-64530    19991001
     AU 757011         B2   20030130
     EP 1117682        A1   20010725       EP 1999-952156   19991001
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     JP 2002526098     T2   20020820       JP 2000-574555   19991001
     NZ 510813         A    20030829       NZ 1999-510813   19991001
PRIORITY APPLN. INFO.:                   AU 1998-6274     A  19981002
                                         WO 1999-AU844    W  19991001
AB   The invention relates to an isolated, synthetic or recombinant <<
       ***chi***  -  ***conotoxin***  peptide having the ability to inhibit a
     neuronal amine transporter, nucleic acid mols. encoding all or part of
     such peptides, antibodies to such peptides and uses and methods of
     treatment involving them.
REFERENCE COUNT:         1     THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> s neuronal (w) (amine or noradrenaline) (w) transporter
L3          43 NEURONAL (W) (AMINE OR NORADRENALINE) (W) TRANSPORTER

=> d his

     (FILE 'HOME' ENTERED AT 09:50:17 ON 04 MAY 2004)

     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT
     09:50:40 ON 04 MAY 2004
L1             4 S CHI-CONOTOXIN
L2             4 DUPLICATE REMOVE L1 (0 DUPLICATES REMOVED)
L3            43 S NEURONAL (W) (AMINE OR NORADRENALINE) (W) TRANSPORTER

=> s l2 (p) l3
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L16 (P) L9'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L20 (P) L11'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L24 (P) L13'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L26 (P) L14'
L4             1 L2 (P) L3

=> s chi-mria or chi-mrib
L5             9 CHI-MRIA OR CHI-MRIB

=> duplicate remove l5
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L5
L6             2 DUPLICATE REMOVE L5 (7 DUPLICATES REMOVED)

=> s l6 not l2
L7             2 L6 NOT L2

=> d l7 1-2 ibib abs

L7   ANSWER 1 OF 2     MEDLINE on STN
ACCESSION NUMBER:    2003482216     MEDLINE
DOCUMENT NUMBER:     PubMed ID: 12885787
TITLE:               Inhibition of the norepinephrine transporter by the venom
                     peptide   ***chi***  -  ***MrIA***  . Site of action, Na+
                     dependence, and structure-activity relationship.
AUTHOR:              Sharpe Iain A; Palant Elka; Schroeder Christina I; Kaye
                     David M; Adams David J; Alewood Paul F; Lewis Richard J
CORPORATE SOURCE:    Institute for Molecular Bioscience and School of Biomedical
                     Sciences, The University of Queensland, St. Lucia 4072,
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Queensland, Australia.
SOURCE: Journal of biological chemistry, (2003 Oct 10) 278 (41) 40317-23.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: PDB-1IEO
ENTRY MONTH: 200312
ENTRY DATE: Entered STN: 20031017
Last Updated on STN: 20031219
Entered Medline: 20031202

AB chi-Conopeptide MrIA (***chi*** - ***MrIA***) is a 13-residue peptide contained in the venom of the predatory marine snail Conus marmoreus that has been found to inhibit the norepinephrine transporter (NET). We investigated whether ***chi*** - ***MrIA*** targeted the other members of the monoamine transporter family and found no effect of the peptide (100 microM) on the activity of the dopamine transporter and the serotonin transporter, indicating a high specificity of action. The binding of the NET inhibitors, [3H]nisoxetine and [3H]mazindol, to the expressed rat and human NET was inhibited by ***chi*** - ***MrIA*** with the conopeptide displaying a slight preference toward the rat isoform. For both radioligands, saturation binding studies showed that the inhibition by ***chi*** - ***MrIA*** was competitive in nature. It has previously been demonstrated that ***chi*** - ***MrIA*** does not compete with norepinephrine, unlike classically described NET inhibitors such as nisoxetine and mazindol that do. This pattern of behavior implies that the binding site for ***chi*** - ***MrIA*** on the NET overlaps the antidepressant binding site and is wholly distinct from the substrate binding site. The inhibitory effect of ***chi*** - ***MrIA*** was found to be dependent on Na+ with the conopeptide becoming a less effective blocker of [3H]norepinephrine by the NET under the conditions of reduced extracellular Na+. In this respect, ***chi*** - ***MrIA*** is similar to the antidepressant inhibitors of the NET. The structure-activity relationship of ***chi*** - ***MrIA*** was investigated by alanine scanning. Four residues in the first cysteine-bracketed loop of ***chi*** - ***MrIA*** and a His in loop 2 played a dominant role in the interaction between ***chi*** - ***MrIA*** and the NET. H alpha chemical shift comparisons indicated that side-chain interactions at these key positions were structurally perturbed by the replacement of Gly-6. From these data, we present a model of the structure of ***chi*** - ***MrIA*** that shows the relative orientation of the key binding residues. This model provides a new molecular caliper for probing the structure of the NET.

L7 ANSWER 2 OF 2 MEDLINE on STN
ACCESSION NUMBER: 2001486070 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11528421
TITLE: Two new classes of conopeptides inhibit the alpha1-adrenoceptor and noradrenaline transporter.
AUTHOR: Sharpe I A; Gehrmann J; Loughnan M L; Thomas L; Adams D A; Atkins A; Palant E; Craik D J; Adams D J; Alewood P F; Lewis R J
CORPORATE SOURCE: Institute for Molecular Bioscience, University of Queensland, Brisbane 4072, Australia.
SOURCE: Nature neuroscience, (2001 Sep) 4 (9) 902-7.
Journal code: 9809671. ISSN: 1097-6256.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: PDB-1IEN; PDB-1IEO
ENTRY MONTH: 200109
ENTRY DATE: Entered STN: 20010903
Last Updated on STN: 20010924
Entered Medline: 20010920

AB Cone snails use venom containing a cocktail of peptides ('conopeptides') to capture their prey. Many of these peptides also target mammalian receptors, often with exquisite selectivity. Here we report the discovery of two new classes of conopeptides. One class targets alpha1-adrenoceptors (rho-TIA from the fish-hunting Conus tulipa), and the second class targets the neuronal noradrenaline transporter (***chi*** - ***MrIA*** and ***chi*** - ***MrIB*** from the mollusk-hunting C. marmoreus). rho-TIA and ***chi*** - ***MrIA*** selectively modulate these important membrane-bound proteins. Both peptides act as reversible non-competitive inhibitors and provide alternative avenues for

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     the identification of inhibitor drugs.


=> d his

     (FILE 'HOME' ENTERED AT 09:50:17 ON 04 MAY 2004)

     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT
     09:50:40 ON 04 MAY 2004
L1             4 S CHI-CONOTOXIN
L2             4 DUPLICATE REMOVE L1 (0 DUPLICATES REMOVED)
L3            43 S NEURONAL (W) (AMINE OR NORADRENALINE) (W) TRANSPORTER
L4             1 S L2 (P) L3
L5             9 S CHI-MRIA OR CHI-MRIB
L6             2 DUPLICATE REMOVE L5 (7 DUPLICATES REMOVED)
L7             2 S L6 NOT L2

=> s l7 or l2
L8             6 L7 OR L2

=> s l8 (p) pain
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L57 (P) PAIN'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L59 (P) PAIN'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L61 (P) PAIN'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L63 (P) PAIN'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L65 (P) PAIN'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L67 (P) PAIN'
L9             3 L8 (P) PAIN

=> s l9 not (l2 or l7)
L10            0 L9 NOT (L2 OR L7)

=> s lewis r?/au
L11        18025 LEWIS R?/AU

=> s alewood p?/au
L12          627 ALEWOOD P?/AU

=> s sharpe i?/au
L13           90 SHARPE I?/AU

=> s l11 or l12 or l13
L14        18596 L11 OR L12 OR L13

=> s l14 and l1
L15            2 L14 AND L1

=> d his

     (FILE 'HOME' ENTERED AT 09:50:17 ON 04 MAY 2004)

     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT
     09:50:40 ON 04 MAY 2004
L1             4 S CHI-CONOTOXIN
L2             4 DUPLICATE REMOVE L1 (0 DUPLICATES REMOVED)
L3            43 S NEURONAL (W) (AMINE OR NORADRENALINE) (W) TRANSPORTER
L4             1 S L2 (P) L3
L5             9 S CHI-MRIA OR CHI-MRIB
L6             2 DUPLICATE REMOVE L5 (7 DUPLICATES REMOVED)
L7             2 S L6 NOT L2
L8             6 S L7 OR L2
L9             3 S L8 (P) PAIN
L10            0 S L9 NOT (L2 OR L7)
L11        18025 S LEWIS R?/AU
L12          627 S ALEWOOD P?/AU
L13           90 S SHARPE I?/AU
L14        18596 S L11 OR L12 OR L13
L15            2 S L14 AND L1

=> log y
COST IN U.S. DOLLARS                         SINCE FILE       TOTAL
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